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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,631	08/30/2001	Koji Kan	16NM99181	9552

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EXAMINER

FETZNER, TIFFANY A

ART UNIT	PAPER NUMBER
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2862

DATE MAILED: 11/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/914,631

Applicant(s)
Koji Kan

Examiner
Tiffany Fetzner

Art Unit
2862



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 30, 2001
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-15 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Aug 30, 2001 is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3 6) ☐ Other:

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DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the abstract “An air feed device comprises a fluid motor to drive rotating vanes and blow air with high efficiency into a space accommodating a sub” is not even a complete sentence. The examiner believes in view of the disclosure that applicant means “subject” not “sub”. Additionally, a key feature of novelty appears to be missing from the abstract entirely. Correction is required. See MPEP § 608.01(b).

Drawings

2. The drawings are objected to because there are unlabeled blank boxes in applicant's Figures. All “blank boxes” need to be labeled in US patent applications.

A) In **Figure 1** box 111 should be labeled “**Seat Drive Section**” as taught in applicant's disclosure on page 5 in Paragraph [0037].

B) In **Figure 1** box 131 should be labeled “**Gradient Drive Unit**” as taught in applicant's disclosure on page 6 in Paragraph [0042].

C) In **Figure 1** box 141 should be labeled “**RF Drive Unit**” as taught in applicant's disclosure on page 6 in Paragraph [0042].

D) In **Figure 1** box 151 should be labeled “**Data Acquisition Unit**” as taught in applicant's disclosure on page 6 in Paragraph [0042].

E) In **Figure 1** box 161 should be labeled “**Control Unit**” as taught in applicant's disclosure on page 7 in Paragraph [0043].

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- F)** In **Figure 1** box 171 should be labeled “**Data Processing Unit**” as taught in applicant’s disclosure on page 7 in Paragraph [0044].
- G)** In **Figure 1** box 181 should be labeled “**Display Unit**” as taught in applicant’s disclosure on page 7 in Paragraph [0046].
- H)** In **Figure 1** box 191 should be labeled “**Operating Unit**” as taught in applicant’s disclosure on page 7 in Paragraph [0046].
- I)** In Figures 5 through 9 and Figures 12 through 16 component “73” should be labeled “gear box” as taught in applicant’s disclosure on page 9 in Paragraph [0055].
- J)** In Figures 5 through 9 and Figures 12 through 16 component “75” should be labeled “fluid/liquid motor” as taught in applicant’s disclosure on page 9 in Paragraph [0055].
- K)** In **Figures 6, 7, 9, 13, 14, and 16** component “81” should be labeled “control flow rate adjuster valve” as taught in applicant’s disclosure on page 10 in Paragraph [0061].
- L)** In **Figures 8, 9, 15, and 16** component “85” should be labeled “radiator” as taught in applicant’s disclosure on page 11 in Paragraph [0065].

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

- A)** In **Figure 3** reference number 35 appears to be indicating an “operator” or “technician” but reference number 35 is not taught in the disclosure.

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B) In Figures 5 through 9 and Figures 12 through 16 components "101" and "105" are shown but these components are not described by the specification.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. Applicant is required to submit a proposed drawing correction in response to this Office Action. Any proposal by the applicant for amendment of the drawings to cure defects **must consist of two parts:**

- A. A separate letter to the Draftsman in accordance with M.P.E.P. (608.02(r); and
- B. A print or pen-and-ink sketch showing changes in red ink in accordance with M.P.E.P. (608.02(v)).

IMPORTANT NOTE: The filing of new formal drawings to correct the noted defect may be deferred until the application is allowed by the examiner, but the print or pen-and-ink sketch with proposed corrections shown in red ink is required in response to this Office Action, and *may not be deferred*.

5. ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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7. **Claims 1-7**, are rejected under **35 U.S.C. 102(b)** as being anticipated by **Hair, Jr. et al.**, US patent 3,983,715 issued October 5th 1976.

8. With respect to **Claim 1**, **Hair, Jr. et al.**, teaches, shows, and suggests: An air conditioning device for providing air to an operator's compartment, [See abstract, col. 6 lines 8-14; col. 5 lines 9-32] which is "a device for air feed". **Hair, Jr. et al.**, teaches that the air-conditioning device comprises "a fluid motor" (i.e. a hydraulic fluid motor) "rotating by fluid flow"; [See col. 2 lines 36-42; col. 4 lines 28-68; col. 5 lines 9-32] "and rotating vanes driven by the fluid motor and forcing air into a space accommodating a subject." [See Figures 8, and 4 which show the blades (i.e. the rotating vanes) of fan component 41; col. 2 lines 36-53; col. 5 lines 9-32; and the abstract].

9. With respect to **Claim 4**, **Hair, Jr. et al.**, teaches, shows, and suggests "A signal acquisition device" (i.e. Sensor line 25A shown in Figure 8, which generates a feedback signal to control valve component 25) [See col. 3 line 43 through col 4 line 52] comprising "means for signal acquisition" (i.e. the pressure in the hydraulic line is the means, by which sensor line 25a acquires a feedback signal) [See col. 3 line 43 through col 4 line 52] "including a space accommodating a subject" (i.e. the operator's compartment) [See abstract, col. 6 lines 8-14; col. 5 lines 9-32] "a fluid motor" (i.e. a hydraulic fluid motor) "rotating by fluid flow"; [See col. 2 lines 36-42; col. 4 lines 28-68; col. 5 lines 9-32] "and rotating vanes driven by the fluid motor and forcing air into a space" [See Figures 8, and 4 which show the blades (i.e. the rotating vanes) of fan component 41; col. 2 lines 36-53; col. 5 lines 9-32; and the abstract]. The same reasons for rejection, that apply to **claim 1** also apply to **claim 4**.

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10. With respect to **Claim 2**, and corresponding **claim 5**, **Hair, Jr. et al.**, teaches, shows, and suggests a “means for adjustment means for adjusting fluid flow quantity supplied to the fluid motor”. [See col. 4 lines 28-51 and col. 3 lines 43-56 where an apparatus built into pump component 24 self-adjusts to regulate the hydraulic fluid flow through motor component 30.] The same reasons for rejection, that apply to **claims 1, 4** also apply to **claims 2, 5**.

11. With respect to **Claim 3**, and corresponding **claim 6** **Hair, Jr. et al.**, teaches, shows, and suggests a “means for adjustment for adjusting ratio of fluid flow quantity supplied to the fluid motor to fluid flow quantity bypassing the fluid motor.” [See col. 3 line 43 through col. 4 line 51] The same reasons for rejection, that apply to **claims 1, 4** also apply to **claims 3, 6**.

12. With respect to **Claim 7**, **Hair, Jr. et al.**, teaches, shows, and suggests that “the means for signal acquisition (i.e. sensor line 25a shown in Figure 8) has a section to be cooled by fluid, and the fluid motor is driven by fluid to cool the section.” [See col. 3 line 43 through col. 6 line 33 where the relationship of all components is taught and freon through the refrigeration system 66 is used to cool the air provided to the operator’s compartment.] The same reasons for rejection, obviousness, and motivation to combine that apply to **claims 1, 4** also apply to **claim 7**.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. **Claims 9** is rejected under **35 U.S.C. 103(a)** as being unpatentable over **Hair, Jr. et al.**, US patent 3,983,715 issued October 5th 1976; in view of **Goscenski, Jr.** US patent 4,179,888 issued December 25th 1979.

16. With respect to **Claim 9**, **Hair, Jr. et al.**, lacks directly teaching that “ the rotating vanes and the fluid motor are made of nonmagnetic material or nonmetallic material”, because **Hair, Jr. et al.**, lacks teaching the type of material the fan vanes/blades are made out of. However, **Goscenski, Jr.** teaches a hydraulic fan drive system in which the fan is made of plastic. [See **Goscenski, Jr.** col. 8 lines 51-60, and Figure 3 component F] It would have been obvious to one of ordinary skill in the art, at the time that the invention was made that the fan blades of **Hair, Jr. et al.**, could be modified to be made out of a plastic (i.e. nonmagnetic material or nonmetallic material) as in the **Goscenski, Jr.** reference because the fans in both the **Hair, Jr. et al.**, and **Goscenski, Jr.** references are for hydraulic systems, specifically hydraulic motors used for air cooling devices. The radiator cooling fan F of the **Goscenski, Jr.** reference is also used in a device which feeds air, therefore the ability to use vanes/blades made out of nonmagnetic material or nonmetallic material, by combining the teachings of the **Hair, Jr. et al.**, and **Goscenski, Jr.**

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references would have been obvious to one of ordinary skill in the art, at the time that the invention was made. The same reasons for rejection, that apply to **claims 1, 4** also apply to **claim 9**.

17. **Claims 10-15** are rejected under **35 U.S.C. 103(a)** as being unpatentable over **Dietz** US patent 5,484,850 issued January 23rd 1996.

18. With respect to **Claim 10**, **Dietz** teaches A respiration monitor that has no electrical connections to the patient, and is therefore usable with a magnetic resonance imaging device, for imaging a patient. [See col. 4 lines 23-32] The examiner considers it inherent that the magnetic resonance imaging system taught by **Dietz**, that is capable of operating with the **Dietz** respiration monitor has “a space accommodating a subject for imaging” because all MR systems must necessarily have “a space” that is capable of “accommodating a subject for imaging, otherwise magnetic resonance imaging could not be performed.

19. The respiration monitor taught by **Dietz** comprises “a fluid motor rotating by flow of fluid; and rotating vanes driven by the fluid motor and forcing air into” the patient within “the imaging space” of the MRI system that is usable with the respiration monitor. [See col. 13 lines 8-29; col. 4 lines 23-32; col. 9 lines 41-68 Figures 12, 13b, 5]. Therefore, the **Dietz** reference teaches an imaging system that comprises all the features of applicant’s claim, even though **Dietz** lacks teaching that the respiration monitor which provides air to the patient, undergoing an MR scan, is an imaging device.

20. With respect to **Claim 11**, **Dietz** teaches and suggests a “means for adjustment for adjusting fluid flow quantity supplied to the fluid motor” [See col. 13 lines 8-29; col. 4 lines 23-

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32; col. 9 line 41-through col. 10 line 48]. The same reasons for rejection, that apply to **claim 10** also apply to **claim 11**.

21. With respect to **Claim 12**, **Dietz** teaches and suggests a “means for adjustment for adjusting ratio of fluid flow quantity supplied to the fluid motor to fluid flow quantity bypassing the fluid motor.” [See col. 12 line 7 through col. 16 line 45 which explains how differences in pressure control the amount of air or gaseous fluid that are provided to the patient 29, or are adjusted or bypassed either automatically, or by physician request]. The same reasons for rejection, that apply to **claim 10** also apply to **claim 12**.

22. With respect to **Claim 13**, **Dietz** lacks directly teaching that “a section to be cooled by fluid, and the fluid motor is driven by fluid to cool the section”. However **Dietz** teaches and suggests that air from a compressor can be directed from the same input connection for the gaseous fluid, and subsequently if nebulizer 102 is replaced by humidifier 119 oxygen with enough water vapor added to make it comfortable can be supplied to the patient”. The adding of water vapor effectively cools the air supplied to the patient, therefore although not directly stated at least one section of the respiration monitor of **Dietz** is effectively cooled as it is driven by the motor. Therefore, applicant’s claim as currently set forth is met by the **Dietz** reference. The same reasons for rejection, that apply to **claim 10** also apply to **claim 13**.

23. With respect to **Claim 14**, **Dietz** teaches and suggests “the means for imaging produces an image by utilizing magnetic resonance imaging” [See col. 4 lines 23-32]. The same reasons for rejection, that apply to **claim 10** also apply to **claim 14**.

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24. With respect to **Claim 15**, **Dietz** teaches and suggests “the rotating vanes and the fluid motor are made of nonmagnetic material or nonmetallic material” because in the vanes of the motor are coated with Mylar, and Mylar is a “nonmagnetic or nonmetallic material” [See col. 9 line 41-through col. 10 line 48; col. 13 lines 8-29; col. 4 lines 23-32]. The same reasons for rejection, that apply to **claim 10** also apply to **claim 15**.

25. *Allowable Subject Matter*

26. **Claim 8** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

27. The **prior art made of record** and not relied upon is considered pertinent to applicant's disclosure.

A) **Kan** US patent application publication US2002/0135370 A1 issued September 26th 2002, which is the corresponding publication of applicant's instant application, and notes only for the purposes of a complete record. The **Kan** publication is not prior art against the claims of the instant application.

B) **Lemelson** US patent 5,946,220 issued August 31st 1999, filed June 5th 1996.

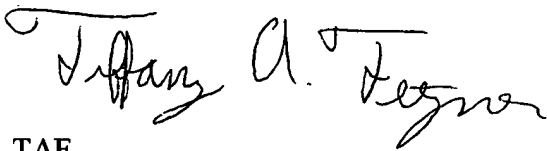
Conclusion

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tiffany Fetzner whose telephone number is (703) 305-0430. The examiner can normally be reached on Monday-Thursday from 7:00am to 4:30pm., and on alternate Friday's from 7:00am to 3:30pm.

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29. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz, can be reached on (703) 305-4816. The fax phone number for the organization where this application or proceeding is assigned is (703)305-3432 .

30. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0956.



TAF

November 14, 2002



EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
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